

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-4, 7, 8 and 10-29 are pending in the application. Claims 5, 6 and 9 have been canceled without prejudice to or disclaimer of the subject matter therein. New claims 17 to 29 have been added.

Support for "coated, wood-free, fine paper" in claims 1-4, 7, 8, and 10-16 is found, *inter alia*, in claims 1 and 5 as originally filed.

Support for "by weight" in claims 2 and 12 is found, *inter alia*, at page 6, lines 10-13.

Support for amending claim 3 to refer to calcium oxalate instead of calcium carbonate is found, *inter alia*, at page 5 (lines 1-3). In view of claim 2 from which claim 3 depends, it is clear that reference to calcium carbonate is a clerical error.

New claims 17-29 have been added to separate out one of the embodiments of claims 1-4, 7, 8, and 10-16, respectively.

These changes are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the Claims

Claims 5 and 10 were objected to under 37 C.F.R. § 1.75(c) as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant respectfully traverses. Fine paper can be wood-free (claim 5) or wood-containing

(claim 6) and claim 1, from which claims 5 and 6 depend from, is directed to fine paper that is wood-free or wood-containing. To expedite prosecution, claims 5 and 6 have been canceled and the subject matter of claim 5 has been added to claim 1. The objections should be withdrawn.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-16 were rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses this rejection.

According to the Examiner, the term "fine paper" is indefinite because Exhibit 1 defines it as an uncoated paper but Applicant claims a paper that may comprise coating pigment. Amended claims 1-4, 7, 8, and 10-16 are directed to coated paper and claims 17-29 are directed uncoated paper.

Claims 2 and 12 were rejected because it is allegedly unclear what physical property the percentage is based. Claims 2 and 12 have been amended to recite "10 and 100% by weight."

The Examiner stated that "said calcium carbonate" in claim 3 does not have antecedent basis. Claim 3 has been amended to recite in place "said calcium oxalate."

According to the Examiner, the term "wood-containing" in claim 6 is allegedly indefinite. Applicant respectfully traverses the rejection. Applicant believe that the term was fully explained in the prior Amendment and Reply Under 37 C.F.R. § 1.111, filed April 25, 2001. As previously stated, the term "wood-free" has an acceptable art meaning. In that regard, the Examiner's attention is respectfully directed to **Exhibit 1** (Pulp and Paper Dictionary, <http://www.paperonweb.com/dict11.htm> (last visited Feb. 21, 2001)) of the

April 25 Amendment and Reply, wherein the definition of "wood-free" is given as "pulp furnish without mechanical pulp." The Examiner's attention is also respectfully directed to **Exhibit 2** of the April 25 Amendment and Reply, pages 634 and 636, from "Paper and Board Dictionary," 2nd ed., Laurila, J. and Hattari, A., eds., The Finnish Paper and Timber Journal, Publishing Company (1996), on which there are mentioned a number of "wood-containing" or "wood-free" items. Moreover, claims 5 and 6 have been canceled and the subject matter of claim 5 ("wood-free") has been added to claim 1.

In view of the above, it is respectfully requested that the rejections under 35 U.S.C. §112, second paragraph, be withdrawn.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-16 were rejected under 35 U.S.C. § 112, first paragraph, allegedly for lack of enablement. The Examiner requested that Applicant supply the PTO with a copy of the incorporated test standards that predates the priority date of the captioned application (March 13, 1998). Applicant is earnestly working on obtaining the relevant documents and will submit them as soon as they are obtained. Applicant apologizes for any inconvenience to the Examiner and the U.S. Patent and Trademark Office.

Claim 9 was rejected under 35 U.S.C. § 112, first paragraph, allegedly because the specification, while teaching that calcium oxalate monohydrate with the claimed particle distribution may be utilized, does not teach that any calcium oxalate with the claimed distribution may be used. Solely to expedite prosecution, claim 9 has been amended to recite that the calcium oxalate is a monohydrate.

Claim 16 was rejected under 35 U.S.C. § 112, first paragraph, allegedly because "[t]here is no support in the original specification for a paper comprising 91-100% calcium oxalate." Applicant respectfully traverses. Applicant point out that in addition to the disclosure in page 7, as noted by the Examiner, the specification, at page 6, lines 12-13, states that "[p]referably, the calcium oxalate proportion of the entire amount of pigments and fillers is about 10 to 100, in particular 19 to 95%." Thus, the specification contains support for "a paper comprising 91-100% calcium oxalate."

In view of the above, it is respectfully requested that the rejections under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 5, 6, 7 and 10-15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsuda *et al.*, U.S. Pat. No. 5,925,446, in view of SE8904337A (Carno). Applicant respectfully traverses.

It is well settled that in order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 in view of a combination of prior art documents, the following conditions must be met: 1) there must be some suggestion or motivation, either in the cited documents themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art documents must teach or suggest all the claimed limitations. M.P.E.P. § 2142, 2100-121 (Aug. 2001). Based on the combination of the documents Matsuda *et al.* and Carno, there is neither a suggestion or motivation to combine the two documents, and

even if the documents were combined, the documents fail to teach or suggest all the claimed limitations for the following reasons.

Matsuda *et al.* relates to transfer paper for forming color images in the electrophotographic system. Carno relates to paper made of ligneous pulp or mechanical pulp, i.e., newsprint paper, and reducing light induced yellowing of ligneous pulp by adding calcium oxalate. Carno, at page 2, lines 9-10, *speculates* that "[c]alcium oxalate like other oxalates has a bleaching capability against formed coloured substances like quinone compounds." Carno, however, does not teach or suggest that calcium oxalate can be used as a brightness increasing pigment (note that wood-free paper does not contain ligneous pulp and thus would not contain quinone, which is formed by absorption of photo energy in the lignin, *see*, Carno, p. 1, lines 20-22). It was well known in the art at the priority date of the captioned application that the problem of yellowing as for newsprint is not an issue for fine paper. Newsprint yellows rapidly, in about a week, whereas fine paper does not. The issue for fine paper is brightness and opacity. Thus, one of ordinary skill in the art would not have been motivated to combine Matsuda *et al.* and Carno.

Moreover, even assuming *arguendo* that one of ordinary skill in the art would have been motivated to combine Matsuda *et al.* and Carno, the combination of the two documents would not have suggested the claimed invention of wood-free fine paper containing calcium oxalate. According to Exhibit 1 of the April 25 Amendment and Reply, "lignin" is "[a] complex constituent of the wood that cement the cellulose fibers together" and "mechanical pulp" is "[p]ulp produced by mechanically grinding logs or wood chips. It is used mainly for newsprint and as an ingredient of base stock for lower grade printing papers." The claims of the captioned application are directed to "wood-free fine paper," which does not

contain ligneous pulp or mechanical pulp. *See*, Exhibit 1 of the April 25 Amendment and Reply. Thus, based on the combination of Matsuda *et al.* and Carno, one of ordinary skill in the art could not have come up with the claimed invention, i.e., using calcium oxalate as filler or pigment in *wood-free*, fine paper. At most, one would have arguably come up with wood-containing fine paper. It is legally impermissible for the Examiner to use hindsight, i.e., the teachings of the captioned application, to establish a *prima facie* case of obviousness. *See, Para-Ordinance Mfg, Inc. v. SGS Importers Intl., Inc.*, 37 USPQ2d 1237 (Fed. Cir. 1995) ("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.").

Claims 1, 2, 4-7 and 10-15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Post *et al.*, U.S. Pat. No. 4,445,970, in view of Carno. Applicant respectfully traverses.

Post *et al.* relates to manufacture of fine paper containing mineral filler and discloses that the fine paper is made from hardwood and softwood pulps, as well as conventional paper-making chemicals. Carno relates to paper made of ligneous pulp or mechanical pulp, i.e., newsprint paper, and reducing light induced yellowing of ligneous pulp by adding calcium oxalate. For the same reasons provided above in view of Matsuda *et al.* and Carno, claims 1, 2, 4-7 and 10-15 are nonobvious over Post *et al.* and Carno.

Claims 1, 2, 4-7 and 10-15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hampl, U.S. Pat. No. 5,893,372, in view of Carno. Applicant respectfully traverses.

Hampl relates to high opacity cigarette wrapping paper. Carno relates to paper made of ligneous pulp or mechanical pulp, i.e., newsprint paper, and reducing light induced

yellowing of ligneous pulp by adding calcium oxalate. For the same reasons provided above in view of Matsuda *et al.* and Carno, claims 1, 2, 4-7 and 10-15 are nonobvious over Hampl and Carno.

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hampl, Post, or Matsuda, in view of Carno, and further in view of Hampl, U.S. Pat. No. 5,893,372, or Griffiths *et al.*, U.S. Pat. No. 3,928,122. Each of claims 8 and 9 (now canceled) depends from claims 1-4. For the reasons provided above, as claims 1-4 are nonobvious, claims 8 and 9 are also nonobvious over Hampl, Post, or Matsuda, in view of Carno, and further in view of Hampl, or Griffiths *et al.*

In view of the above, favorable consideration of the pending claims is respectfully submitted and it is respectfully requested that all rejections under 35 U.S.C. § 103 be withdrawn.

Finality of the Office Action Should be Withdrawn

The Office Action dated July 17, 2001 has been deemed final. Applicant submits that the finality of the Office Action is improper. "Under the present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure filed during the period set forth in 37 CFR 1.97(c)" M.P.E.P. § 706.07(a), 700-57 (Aug. 2001).

Claim 16 was rejected under 35 U.S.C. § 112, first paragraph, allegedly because "[t]here is no support in the original specification for a paper comprising 91-100% calcium oxalate" (claim 16 recites "over 85%"). In the prior Amendment and Reply Under 37 C.F.R.

§ 1.111, filed April 25, 2001, claim 16 was amended but the language of "over 85%" has remained the same since the filing of the captioned application on March 12, 1999. Thus, Applicant submits that the rejection was not necessitated by any of Applicant's amendments, as required for issuance of a final Office Action.

Claims 1, 2, 4-7 and 10-15 were rejected under 35 U.S.C. § 103(a) over Post *et al.* in view of Carno. Claims 1, 2, 4-7 and 10-15 were rejected under 35 U.S.C. § 103(a) Hampl in view of Carno. Post *et al.* and Hampl were not cited by Applicant in an information disclosure statement under 37 C.F.R. § 1.97(c), but were cited for the first time by the Examiner in the July 17 Office Action. The rejections over Post *et al.* and Carno, and Hampl and Carno were not necessitated by any of Applicant's amendments to the claims as evidenced by the fact that the same rejection of claims 1, 2, 4-7 and 10-15 over Matsuda *et al.* and Carno and the Examiner's same arguments from the prior Office Action dated October 25, 2000 have been maintained in the July 17 Office Action. The rejections over Post *et al.* and Carno, and Hampl and Carno could have been issued in the prior October 25 Office Action against the then pending claims.

In view of the above, it is respectfully requested that the finality of the July 17 Office Action be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the

outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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A handwritten signature in cursive script, reading "Judith U. Kim".

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Date: January 17, 2002

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Version with markings to show changes made

In the Claims

Claims 5, 6 and 9 have been canceled.

Claims 1-3, 7, 8, and 12-16 have been amended as follows:

1. (Twice Amended) A method of reducing the combustion residue of coated, wood-free, fine papers having an ISO brightness of 80% or more and an opacity of 80% or more, wherein said method comprises making said coated, wood-free, fine paper with a filler and/or coating pigment that comprises calcium oxalate.

2. (Twice Amended) The method according to claim 1, wherein the proportion of calcium oxalate present in the entire amount of pigment and filler is between 10 and 100% by weight of the total pigment and filler.

3. (Twice Amended) The method according to claim 2, wherein said calcium oxalate [carbonate] is in said pigment.

7. (Twice Amended) The method according to any one of claims 1-4, wherein the amount of calcium oxalate is 0.1 to 90% by weight, calculated from the total weight of the dry matter of the coated, wood-free, fine paper.

8. (Twice Amended) The method according to any one of claims 1-4, wherein said calcium oxalate is a monohydrate that has been ground and over 90% of the particles of said

ground calcium oxalate that are used are smaller than 2.3 μm and only 10% are smaller than 0.5 μm .

12. (Twice Amended) A method of reducing the wear of a coated, wood-free, fine paper-making wire wherein said method comprises incorporating calcium oxalate into said coated, wood-free, fine paper or into the coating color used [for coating said] in said coated, wood-free, fine paper wherein said calcium oxalate comprises 10 to 100% by weight of the total pigment.

13. (Twice Amended) Coated, wood-free, fine paper, wherein said fine paper:

- has an ISO brightness of over 80% and an opacity of over 80% and
- contains calcium oxalate as a filler and/or pigment.

14. (Twice Amended) The coated, wood-free, fine paper according to claim 13, wherein said coated, wood-free, fine paper has a maximum combustion residue of 35%, calculated from the total weight of the dry matter of the coated, wood-free, fine paper.

15. (Twice Amended) The coated, wood-free, fine paper of claim 13, wherein said coated, wood-free, fine paper further comprises fillers and/or coating pigments other than calcium oxalate.

16. (Twice Amended) The coated, wood-free, fine paper according to any of claims 13 to 15, wherein the total content of said calcium oxalate is over 85% of the total weight of the dry matter of said coated, wood-free, fine paper.

Claims 17-29 have been added.